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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,994	05/13/2002	Juergen Kurle	10191/2149	4416

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EXAMINER
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ART UNIT	PAPER NUMBER
2841	

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/030,994	KURLE ET AL.
	Examiner	Art Unit
	Thanh Y. Tran	2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 is unclear as to what Applicant means by "the elastically deformable segments are flexibly deflected in three spatial directions"? The Examiner does not see how the elastically deformable segments are flexibly deflected "in three spatial directions" to the printed circuit board.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 14-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshima et al (U.S. 5,444,297) in view of Asao (U.S. 6,325,642).

With respect to claims 14, 24, 25, 26 and 27, as best understood, Oshima et al discloses an electronic device (Fig. 7), comprising a housing part (comprising elements 101 and 122) having at least one closable opening (102) and a plug-in part (PS (N)), a printed circuit board (131) accommodated in the housing part (comprising elements 101 and 122); at least one of an

electrical component (IC3) and an electronic component (IC3) arranged on the printed circuit board (131); a plurality of electrical contact elements (PI, 107) electrically connected to the plug-in part (PS (N)) [It should be noted that: since electrical contact elements PI, 107 electrically connecting to wiring pattern P(N); and the plug-in part PS (N) is also electrically connected to wiring pattern P(N), thus it is inherent to know that electrical contact elements (PI, 107) which are electrically connected to the plug-in part (PS (N))], wherein: the plurality of electrical contact elements (PI, 107) include ends (107) in a housing interior running parallel to each other and protruding in the direction of the at least one closable opening (as labeled in figure 7), the ends pass through contact openings (see "contact openings" as labeled in figure 7) of the printed circuit board (131) and are conductively connected to the printed circuit board (131), and the printed circuit board (131) is flexibly supported in the housing part (comprising elements 101 and 122) by the contact elements (PI, 107); the plurality of elastically deformable segments (see the deformable segments as pointed out at 107 and PI in figure 7) arranged on parts of lengths of the contact elements (PI, 107) not inserted into the contact openings (as labeled in figure 7).

Oshima et al does not teach an electronic device comprising a plurality of damping elements via which the printed circuit board is joined at least indirectly to the housing part. Asao teaches a housing (Fig. 2) accommodates a printed circuit board (4) wherein the printed circuit board is supported via damping elements (12) at least indirectly to the housing part (as labeled in Fig. 2). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the electronic device of Oshima et al by having a printed circuit board is supported via damping elements at least indirectly to the housing part as taught by Asao for the purpose of supporting the printed circuit board within the housing.

With respect to claim 15, as best understood, Oshima et al discloses an electronic device (Fig. 7), wherein the elastically deformable segments (as shown and labeled in figure 7) of the contact elements (PI, 107) are flexibly deflected at least in one direction perpendicular to the printed circuit board (131).

Claim 16 is indefinite, thus it does not define over the reference of Oshima et al.

With respect to claim 17, Oshima et al discloses an electronic device (Fig. 7), wherein, when being plugged in, the printed circuit board (131) is slipped onto the contact elements (PI, 107) such that the ends penetrate in a contacting manner into the contact openings (see "contact openings" as labeled in figure 7).

With respect to claim 18, figure 7 of Oshima et al shows the ends (ends of terminals 107, PI) are soldered to the contact openings (as labeled in figure 7).

With respect to claim 19, figure 7 of Oshima et al shows that a plurality of stop elements (P(E3), P(E6)) that limit a deflection of the elastically deformable segments in a plug-in direction of the printed circuit board onto the ends of the electrical contact elements.

With respect to claim 20, figure 7 of Oshima et al shows the stop elements (P(E3), P(E6)) are formed by fixed segments of the electrical contact elements contacting an interior wall of the housing part (comprising elements 101 and 122) opposite the at least one closable opening.

With respect to claim 21, Oshima et al discloses an electronic device (Fig. 7), wherein the end faces of the printed circuit board (131) are separated by a gap (as labeled in figure 7) from the interior walls of the housing part (comprising elements 122 and 101).

With respect to claim 22, Oshima et al does not teach the electronic device comprising damping elements and wherein the damping elements are inserted into the gap and connect an

edge area of the printed circuit board to the housing part. However, Asao teaches a housing (Fig. 2) comprising a printed circuit board (4) and damping elements (12). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the electronic device of Oshima et al by including damping elements as taught by Asao for the purpose of supporting the printed circuit board within the housing. The Examiner takes Official Notice that it is known to provide damping elements which are inserted into the gap and connect an edge area of printed circuit board to housing part for the purpose of protecting the printed circuit board from being damaged by dropping or environment's shocks.

With respect to claim 23, Oshima et al does not teach an interior wall of housing part includes a step, and upper side of the step facing the printed circuit board forms a stop for the printed circuit board when the printed circuit board is slit onto the electrical contact elements. The Examiner takes Official Notice that it is known to provide a step for an interior wall of the housing part of an electronic device. Thus, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Oshima et al by including a step which forms a stop for the printed circuit board when the printed circuit board is slit onto the electrical contact elements for the purpose of mechanically supporting the printed circuit board within the housing.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Y. Tran whose telephone number is (703) 305-4757. The examiner can normally be reached on Monday through Thursday and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin, can be reached on (703) 308-3121. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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